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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

GUADALUPE, YARITZA

ART UNIT	PAPER NUMBER
2859	9

DATE MAILED: 04/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,111

Applicant(s)

ROBERT, EMMANUEL

Examiner

Yaritza Guadalupe

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 April 2002 and 20 May 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-14 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

4) Interview Summary (PTO-413) Paper No(s). _____ .

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

6) Other: _____ .

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:
 - a. In line 5 of page 10, Claim 1 states “ said detection means being connected to information processing means ”. This statement should read “said detection means being connected to an information processing means ”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1 – 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 refers to a control device comprising at least two arrays of photodetectors for detecting points uniformly distributed over at least one support in the shape of a sphere or a portion of a sphere. This limitation is indefinite because it is not clear what is the applicant

referring to by the points. What are these points? How do they operate? What is their function?
Appropriate correction is required.

Claims 2 – 14 are rejected due to their dependency on claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 3, 8 – 12 and 14 are rejected under 35 U.S.C. 102 (b) as being anticipated by Fincher (US 4,533,827).

Fincher discloses a control device / optical joystick comprising a mobile component / lever (See Figure 9) mounted on a ball pivot, wherein the mobile component is adapted to be rotated around at least two different axes (a first Cartesian axis and a second Cartesian axis) and the device comprises detection means (See Columns 7 and 8, lines 58 – 61 and 12 – 14 respectively) for optically detecting the position of this component, said detection means being connected to information processing means (See Column 10, lines 43 – 54) and comprising at least two arrays of photo-detectors for detecting points / dot pattern (See Column 8, lines 32 –

34) uniformly distributed over at least one support in the shape of a sphere or a portion of a sphere (130, 152, 162), the arrays and the said support being positioned around the ball pivot of said component and some being fixed and others mobile and secured to the mobile component.

Fincher also discloses the arrays of photo-detectors being fixed and the said support is borne by the mobile component (See Figure 9). Fincher discloses a device wherein the mobile component is displaceable in rotation around three axes and wherein said photo-detector arrays are positioned at 180° from one another around a rotation axis of the mobile component.

Fincher discloses a device wherein the supports and the arrays of photo-detectors are centered on the ball pivot. Fincher further discloses a device wherein the points are considered equidistant and located on apexes of identical and adjacent equilateral triangles and wherein each point has a dimension corresponding to at least that of a photo-detector of the said arrays since the option of changing the size, pattern or density of the points / dot patterns is already given by Fincher.

Fincher discloses a device wherein the points are optically transparent, reflecting, diffusive and/or colored (See Column 8, lines 27 – 40). Fincher discloses a device wherein said support bears at least one reference point for which the optical properties and / or the dimensions are different from those of the others points. Fincher also discloses the information processing means comprise programmed means for determining the positions of the said points with respect to said

photo-detector arrays an for tracking the trajectories of said points upon displacements of the mobile component.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 - 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Fincher (US 4,533,827).

Fincher discloses a device as stated in paragraph 5 above.

Fincher does not discloses the photodetector array positioned at 90° from one another as stated in claim 4. Fincher does not discloses each array comprising at least three rows and three columns of photo-detectors as stated in claims 6 and 7.

Regarding claims 4 and 5 : Fincher discloses the photo-detector array positioned at 180°. Changing the position of the photo-detector array from the location shown by Fincher to a 90° position, absent any criticality, is only considered to be an obvious modification of Fincher

device that a person having ordinary skill in the art at the time the invention was made would be able to provide using routine experimentation since the courts have held that there is no invention in shifting the position if the operation of the device would not be thereby modified. In re Japikse, 86 USPQ 70 (CCPA 1950) and since Fincher already teaches the benefits of providing the photo-detector array positioned at 90° in an alternate structure (See Columns 6 and 7, lines 66 – 68 and 1 – 4 respectively).

With respect to claims 6 and 7 : Fincher discloses a device having a photodetector array positioned at 180° but also gives the option of using alternate arrays and alternate configurations for the photodetector array. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide each array comprising at least three rows and three columns of photo-detectors, since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 and since the courts have held that there is no invention in shifting the position of an element if the operation of the device would not be thereby modified. In re Japikse, 86 USPQ 70 (CCPA 1950)

Allowable Subject Matter

8. Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following cited references are considered of relevance to the present application :

- b. Holiday (US 4,748,323)
- c. Meyers (US 6,259,433)
- d. Mikan (US 4,731,530)
- e. Mikan (US 6,222,179)
- f. Beauprey (US 4,533,830)
- g. Takeda et al. (US 6,489,946)
- h. Mikan (US 6,246,047)
- i. Adan et al. (US 6,172,354)
- j. Mitchell (US 5,117,102)
- k. Hines (US 6,344,846)
- l. Marcus et al. (US 6,482,010)
- m. Mutton (US 4,250,378)

- n. Mikan (US 5,532,476)
- o. Bard (US 4,686,361)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe whose telephone number is (703)305 -5676. The examiner can normally be reached on 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-4467 for regular communications and (703)872-9318 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Yaritza Guadalupe
Patent Examiner
Art Unit 2859
March 31, 2003

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